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09/682,065	07/16/2001	Antonio Mugica	38146	1265

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EXAMINER

CAO, DIEM K

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/682,065

Applicant(s)

MUGICA ET AL.

Examiner

Diem K Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. Claims 1-22 are presented for examination.

#### ***Claim Objections***

2. Claims 3 and 14 are objected to because of the following informalities: Claims 3 and 14 recite the limitation "a software layer the hides implementation detail and data structure" on line 4, which is unclear. Examiner interprets as "a software layer that hides implementation detail and data structure" for examining purpose. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the different application" and "the COREs" in lines 4 and 5, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 suffers the same 112 2<sup>nd</sup> problems.

Appropriate corrections are required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natori et al. (U.S. 2004/0060036 A1) in view of Bohrer et al. (U.S. 6,106,569).

7. **As to claim 1**, Natori teaches

- having a core dimension (an enterprises system framework 10; page 4, section 0059);
- relating the core dimension to the application (constructing an enterprise system using the enterprise system framework 10; page 5, section 0072);
- having a COREs within the core dimension related (an enterprise system basic framework 11, a client/server application system framework 12, a web application system framework 13, a server application system framework 14, and a framework for integrating systems 15; page 4, section 0059);
- having the COREs within the core dimension share information and integrate the system architecture (The enterprise system basic framework ... communication processing components; page 4, section 0060);
- having the applications (a client/server application system group, a Web application system group and a server application system group; page 5, section 0073) based on

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abstractions (a client/server application system framework 12, a web application system framework 13, a server application system framework 14; page 4, section 0059) that are composed of drivers, abstraction layers and a unique CORE (abstract class, a subclass, and customized sub class by materializing the abstract method of the subclass and adding a new attribute or method; page 5, section 0074);

8. However, Natori does not teach having two dimensions, an application dimension and a core dimension, relating the application dimension to different applications, and having a plurality of terminal devices. Bohrer teaches having two dimensions, an application dimension (Software applications 120; Fig. 1) and a core dimension (Base layer 101, Common Business object layer 102, and Core business process layer 103; col. 6, lines 39-72 and Fig. 1), relating the application dimension to different applications (applications 121-127, software applications 120; Fig. 1), and having a plurality of terminal devices (Servers 111, OS/2, OS/400, AIX, NT, Clients 112, OS/2, NT, AIX; see Fig. 1 and col. 6, lines 29-38).

9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Natori and Bohrer because it would improve the complexity of the system of Natori because Bohrer's applications can support all hardware platforms and related software operating systems relevant on the market (col. 3, lines 43-44).

10. **As to claim 2**, Natori teaches the CORE consists of a complex compound of software components that dynamically accepts software extensions and exchanges information with other

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COREs (a client/server application system framework 12, a web application system framework 13, a server application system framework 14; page 4, sections 0061-0062 – page 5, section 0063).

11. **As to claim 3**, Natori teaches the CORE consists of a complex compound of software components that dynamically accepts software extensions and exchanges information with other COREs (a client/server application system framework 12, a web application system framework 13, a server application system framework 14; page 4, sections 0061-0062 – page 5, section 0063), the abstraction layers consists of a software layer that hides implementation details and data structures of a specific software (The client/server application ... abstractly defines basic attributes and behaviors of a stand-alone client/server application server system, and is expressed as aggregate of abstract classes and concrete classes; sections 0061-0063), the flexible and easily changing and extending the enterprise system (section 0009), and the extending is created by modified the subclass of the abstract class (section 0074) comprises of an abstraction layer (abstract class) and a driver (customized subclass).

12. **As to claim 4**, although Natori does not explicitly teach the core dimension consists of a plurality of COREs connected by a bi-directional communication means, Natori teaches the communication between the COREs are enabled (sections 0061-0063). It would have been obvious to one of ordinary skill in the art that the COREs are connected by a bi-directional communication means.

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13. **As to claim 5**, Natori teaches the CORE provides the basic functions which related to start and end of the systems, the delivery of data between systems, the transmission and acquisition of requests, the input/output of data to systems, the transition between systems, system control, and connection interfaces to common components (sections 0060-0063).

Although Natori does not use the same terms as of the instant application, the system of Natori provides the same functionalities. However, Natori does not teach the CORE consists of three parts. Bohrer teaches the CORE consists of three parts (The Base layer 101, the Common Business Objects layer 102 and the Core Business Process layer 103; col. 6, lines 39-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Natori and Bohrer because it would be easier to maintain the system of Natori by having different layers, and each layer provides different functionality.

14. **As to claim 6**, Natori does not explicitly teach the abstraction layer consists of two parts a CORE-Abstraction interface, which interfaces an extension with a CORE; and Extension Knowledge Layer, which contains logic and knowledge about the operations of extensions. Bohrer teaches the Core Business Process layer 103 is an abstract layer (layer 103 does not provide executable code; col. 6, lines 62-67), and contains the basic functions which all of the application programs, and each one is built for one specific type of application (col. 6, line 67 – col. 7, line 14), and interfaces with a CORE (See Fig. 1).

15. **As to claim 7**, Natori does not explicitly teach having an extension driver layer that consists of parts an Abstraction-Driver interface, which interfaces the Abstraction layer with a

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terminal device, and Driver logic used to control the terminal device. Bohrer teaches an extension driver layer consists of parts an Abstraction-Driver interface, which interfaces the Abstraction layer with a terminal device (Adapter 503; see Fig. 3 and col. 8, lines 48-59), and Driver logic used to control the terminal device (Extension 502; Fig. 3 and extensions 301-303; Fig. 4 and col. 8, lines 48-67).

16. **As to claim 8**, Natori does not teach the method of claim 1 used for a Control and Automation Application. Natori teaches the framework is used to create multiple type of applications (abstract). It would have been obvious the framework of Natori could be used to implement a Control and Automatic Application.

17. **As to claim 9**, Natori does not teach the method of claim 1 used for an Assets Control application. Natori teaches the framework is used to create multiple type of applications (abstract). It would have been obvious the framework of Natori could be used to implement an Assets Control Application.

18. **As to claim 12**, it corresponds to the method claim of claim 1 except it's a computer product claim.

19. **As to claims 13-20**, see rejections of claims 2-9 above.



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20. Claims 10-11 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natori et al. (U.S. 2004/0060036 A1) in view of Bohrer et al. (U.S. 6,106,569) further in view of Brobst et al. (U.S. 5,893,106).

21. **As to claim 10**, Natori does not teach replace a terminal device with a new terminal device consisting of the adding the step of changing the driver for the extension. Brobst teaches replace a terminal device with a new terminal device consisting of the adding the step of changing the driver for the extension (CF extensions need change to accommodate new operating systems; col. 5, lines 12-25). It would have been obvious to one of ordinary skill in the art by the time the invention was made to combine the teaching of Natori and Brobst because it provides a method to create an operating platform independent system.

22. **As to claim 11**, Brobst teaches add a new terminal device to a system using the method in claim 1 consisting of adding the steps of

- a) constructing a new extension for the terminal device (CF extensions need to change; col. 5, lines 12-25),
- b) interfacing the new extension into the CORE (add desired extensions to the server framework itself; col. 5, lines 27-29);
- c) asking the CORE for the required data and information to handle the new extension (When such changes are determined ... at box 106; col. 5, lines 52-58).

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23. It would have been obvious to one of ordinary skill in the art by the time the invention was made to combine the teaching of Natori and Brobst because it provides a method to create an operating platform independent system.

24. **As to claims 21-22**, see rejections of claims 10-11 above.

### *Conclusion*

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nierstrasz et al. teaches techniques promote a new approach to software engineering by revising frameworks of plug-compatible software components, reliable, open applications can be largely constructed, rather than programmed.
- Hartman et al. teaches a method to apply an off-the-shelf object-oriented analysis and design methodology to the development of software to meet business requirements and standards.
- Mambella et al. teaches an integrated approach to software reuse practice.
- Schmidt et al. teaches a technique to develop a flexible and high-performance web servers with frameworks and patterns.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diem K Cao whose telephone number is (703) 305-5220. The examiner can normally be reached on Monday - Thursday, 9:00AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**

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